PATENT FOR INCREASING THE EFFECTIVE STRENGTH OF BEAMS.—We learn from the *Journal of the Franklin Institute*, that a patent has been granted to MR. J. R. Remington, for "An improvement in the method of increasing the effective strength of beams or rafters of wood or other materials, used in bridges and other structures." The patentee says,—"The nature of my invention consists in so arranging timbers or beams as to avoid their tendency to break in the middle of their length, and this is effected by extending the ends of the timbers beyond the points of support, and there bracing or tying them down, so as to render the points of support fulcra; the tendency to break in the middle of the length is thus in part transferred to the points of support, for it will be evident that thus supported the timbers cannot break in the middle without breaking also at the two points of support." *Claim.*—"What I claim as my invention, and desire to secure by letters patent, is the method of increasing the effective strength of timbers, or sleepers, or preventing their tendancy to break in the middle of their length, by tying or bracing down their ends beyond the points of support, in the manner and for the purpose set forth. It is to be understood that this method of increasing the effective strength of beams is applicable to all kinds of material of which beams are made in various constructions."

INDIAN ANTIQUITIES IN KENTUCKY.—Kentucky, says the *Analand*, abounds in ancient earthen mounds and tumuli, much resembling those found on the shores of the Gulf of Mexico, and for the greater part like those found in Ohio, of a religious character. They generally consist of small circles and parallelograms, the mounds being generally more regular, and in the average, perhaps, greater in diameter than those northwards from Ohio. The rectangular-terraced mounds in particular are comparatively numerous and frequently of considerable size. Professor Rafinesque has mentioned the sites of many of them in his "Notes," but has given no very clear insight into their true character. He estimates the number of distinct groups in this State at not less than 600. These ancient remains occur in singular abundance in Montgomery County, and several are of peculiar interest. It may be assumed with certainty from the descriptions, that each group formerly belonged to a separate city, so that there must once have been six cities on an area now occupied by one. These imperfect glimpses of American antiquity show, that at the time of the discovery of America, her age of civilisation was already over, that through the force of circumstances, the solution of which is now impossible, one great nation had disappeared, and another and ruder race, which had, perhaps, fallen from a higher state into their present barbarism, took its place. An unmistakeable family relationship shows itself in all these buildings, from those in the centre of North America, to those spread far and wide over Mexico, or even to those deep in the woods of South America.

MONEY FOR PUBLIC WORKS.—In your number for the 18th August, a suggestion was made, and the means for carrying on large public works pointed out;—there is another and most crying want which will probably be delayed or crippled for lack of funds—"The general drainage of the metropolis, and large towns and cities." These works, if properly carried out, will last for many generations, and the question would then naturally arise, Why should the present generation bear the whole burthen? Why not (as in the suggestion for public works) let the amount required be at once borrowed, and the interest, and such further interest as would, say in the space of 100 years, liquidate the whole, be chargedon the public funds, and the sewage manure be sold to adjacent lands, at prices just sufficient to meet the expense of conveyance. The article of the 18th might most advantageously be again brought before the public. It suggests means of effecting vast good. For the purposes of war there was no lack of borrowing, and we have a heavy interest to pay for what is now deemed a very questionable advantage; surely, for the purposes of peace, of national improvement, and positive good, there ought to be no hesitation.

ARRANGEMENT OF STAIRCASES IN BUILDINGS.—A patent has been taken out, in America, by Mr. W. P. Gibbs, of Boston, for a mode of arranging staircases in buildings. The patentee says,—"By my improvement in building houses, or blocks of houses, I am enabled to obtain two staircases, with the requisite entry room, in the same, or about the same space or superficial area which is generally consumed in the construction of one, according to the common practice of arranging the same; thereby saving, in a block of houses, a frontage of 5 feet on the street or passage, in each two thereof; or, in other words, if we suppose each of two houses, as generally constructed, has a width in front of 20 feet, or 40 feet including both fronts, such may be erected on my improved plan (that is, houses having their parlours and chambers, or other rooms, of the same size as those having a frontage of 20 feet on the street) on a lot of land having a front of 35 feet. Instead of the straight staircases, which denote my second improvement, two circular flights, winding around one central post, may be adopted." *Claim.*—"I claim the method or methods of arranging staircases in connection with each other, and in combination with the several suites of apartments leading thereto from said staircases, the whole being constructed and arranged substantially in the manner and for the object set forth."

FIRE.—The Hall of the Carpenters' Company, London, mentioned last week, which escaped the great fire of 1666, narrowly avoided destruction by the same agent on the 6th inst., when some warehouses in London-wall, filled with costly goods, were burnt down.——Two other fires occurred while the above was raging, one in Shouldham-street, Bryanstone-square, the other in Bedford-court, Covent Garden.——At the end of last month Quebec again suffered severely,—twenty-five buildings were destroyed, worth about 25,000*l.*

STRYNING MECHANICS' INSTITUTION.—On the 20th and 27th ult., Mr. Cordwell, of Brighton, delivered two lectures to the members of this institution, on architecture and drawing. On the first occasion, assisted by diagrams, he gave a description of the progress of architecture, from the rude wigwam to the establishment of the "orders." The second lecture was devoted to the subject of drawing, the origin of perspective, and its utility,—explaining the various necessary points by geometrical lines and figures, and concluding by describing the nature of colours.

WESTERN LITERARY INSTITUTION, LEICESTER SQUARE.—The lecture season here was opened on the 1st inst. with a conversazione. On the 4th, Dr. Snow lectured on causes and prevention of cholera. A new and attractive feature has been added to the programme here in the shape of a series of glee concerts.

DESICCATED FLOOR OF THE LONDON COAL EXCHANGE.—The patentees of the desiccating process, Messrs. Davison and Symington, have published a representation of the floor of the merchants' area of the New Coal Exchange, London, which consists altogether of upwards of 4,000 distinct pieces of wood, of various kinds and qualities. The great feature of the affair is, that the whole of these pieces were, only a few months since, either in the tree in the growing state, or cut from wet logs, and were prepared for use in the course of a few days, by their method of seasoning. The names of the woods thus introduced are black ebony, black oak, common and red English oak, walnutoe, white bolly, mahogany, American elm, red and white walnut (beech and English), and mulberry. It is mentioned as a proof of the rapidity of this mode of seasoning, that the black oak is part of the piles which was discovered and removed from the bed of the Tyne river, about the latter end of last year. The mulberry wood, introduced as the blade of the dagger in the city shield, is no less than a piece of a tree which was planted by Peter the Great, when working in this country as a shipwright. They state that no one piece of the 4,000 occupied more than ten or twelve days in seasoning.*

* *Drying Closets for Coals.*—In reply to an inquirer last week, the patentees of the above-named process have forwarded a certificate of the successful application of their apparatus for drying coals.

NEWCASTLE SCHOOL OF DESIGN.—The annual meeting of the friends of this institution was held on Friday last, Mr. W. Ord, M.P., in the chair, when the report of the committee was read, and the prizes were distributed. The report spoke encouragingly of the present state and prospects of the school, which had been more fully and steadily attended than heretofore, the average throughout the year being 67. By a removal to rooms belonging to the Natural History Society a considerable diminution of expense would shortly be incurred, and it was designed to hold an extensive fancy-fair in aid of the funds. It was to be regretted that, in the very midst of previous great exertions in the getting up of the Polytechnic Exhibition, the Board of Trade should have thrown cold water on all such exertions by withdrawing the usual assistance; but the Board had since seen its error, and not only restored the Government allowance, but had met the promise of an increase should the local efforts be efficiently sustained. Thanks were voted to the teacher, Mr. Scott, for his exertions.

MASS KNOWLEDGE OF ART GENERAL.—Mr. Young Mitchell, of the Sheffield School of Design, lectured at the People's College, in that town, last week, on Italian art in the fourteenth, fifteenth, and sixteenth centuries. In the course of his remarks he said,—Art has in England hitherto been a sealed book. Let us hope that time is nearly at an end. For myself, I wish to see it diffused abroad amongst all classes. I would have it a necessary part of the education of every boy. There are some timid souls who fear by this means we should be inundated by Raphaels and Cellinis. There is, alas! no fear. As soon might we refuse to allow a boy to learn to read, for fear he should become a Newton or a Locke. Let us rather view the matter in its true light, and consider that, as reading gives to its possessor the power of appreciating the works of the great men of all ages, so would a knowledge of art give to its possessor a like pleasure and a like appreciation. I have been called Utopian in the idea I have of a universal art education. Let those who call me so recollect that, three centuries ago, the man who could read and write was considered a prodigy. These arts are too widely spread at this day to be considered accomplishments, and to be wanting in them is considered a reproach. I believe that a general knowledge of art would add to the wealth and consequence of the nation, and to the material comfort of the people. But this would not be all. It would elevate their minds and refine their tastes, thus increasing their intellectual enjoyments, and proving one of the most powerful helps to our onward progress.

COMPRESSION OF FUEL INTO BLOCKS FOR STOWAGE.—A patent has been granted to Mr. W. Buckwell, Civil Engineer, of the Artificial Granite Works, Battersea, for a mode of compressing coke or other fuel by percussion of a steam-hammer, which may be made of three tons weight, for example, and giving fifty strokes a-minute. The granulated and moistened fuel is placed in a stout cast-iron cylinder, faced inside with wrought-iron or steel, and then exposed to the action of the hammer. Means are also provided for retaining the block of fuel in the cylinder for a short time till fully set in its new form.

CELLARS INHABITED IN CONTRAVENTION OF BUILDINGS ACT.—A keeper of lodging-houses at Nos. 2 and 3, Church-lane, St. Giles's, has been fined 20*s.* for allowing a sub-tenant or lodger to occupy, and allow eight persons to sleep in, a cellar 14 feet by 6, and 7 feet high, with one window, but without fireplace or front door, a practice which appears to have gone on in the same tenantry for fourteen years: the fine to be repeated daily till practice discontinued—with costs. There were in all, forty-eight lodgers in No. 2, and seventy in No. 3.

BUCKS COUNTY LUNATIC ASYLUM COMPETITION.—The commission of magistrates for providing a pauper lunatic asylum for this county invited seven architects to submit designs for the building. Some of them declined, but four designs were sent in for the approval of the magistrates; and at a meeting held on the 15th ult., one, by Messrs. Wyatt and Brandon, was selected.

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